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AUTHOR Napier, Ted L.; And Others
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ABSTRACT

To ascertain the incidence of drug use in a rural area and to provide insight into the covariates of illegal drug use which might be useful in developing prevention programs, data were collected in the spring of 1981 from 2,060 or 83.2% of all students grades 8 through 12 in a southern Georgia county. Data were collected during regularly scheduled school hours in large group interviewing sessions. Respondents participated extensively in illegal drug use: approximately 76.7% indicated they had consumed alcohol at least once; 41.0% had tried marijuana at least once; 64.5% had tried cigarettes at least once; 16.0% had tried amphetamines at least once; and 12.2% had tried barbiturates at least once. Youngsters who were older, male, white, from stressful home environments, less religious, more active in dating, identified with the drug culture group, more frequently engaged in shoplifting, had sold drugs at some time, and from families where parents used drugs tended to be more frequent drug users. Since illegal drug use was quite extensive and primarily confined to alcohol, marijuana, and cigarettes, perhaps programs designed to prevent or reduce drug abuse in the study county should be focused on these illegal drugs. (BRR)

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# FACTORS ASSOCIATED WITH ILLEGAL DRUG USE IN RURAL GEORGIA

Ted L. Napier
The Ohio State University

Douglas C. Bachtel
University of Georgia

Michael V. Carter
The Ohio State University

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Department of Agricultural Economics and Rural Sociology, 2120 Fyffe Road, Columbus, Ohio 43210.

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ABSTRACT

Data assessing the extent of illegal drug use were collected in the spring of 1981 from 2,060 junior and senior high school students living in a rural county in southern Georgia. The sample consists of 83.2 percent of all students in the 8 through 12 grades in the county. Only students absent from the public schools at the time the questionnaires were administered were excluded from the analyses. A private school in the county with less than 5 percent of all students refused to participate in the study. The study findings are basically consistent with research expectations. It was revealed that the respondents participated extensively in illegal drug use. Approximately 76.7 percent of the respondents indicated they had consumed alcohol at least once, 41.0 percent had tried marijuana at least once, 64.5 percent had tried cigarettes at least once, 16.0 percent had tried amphetamines at least once, and 12.2 percent had tried barbiturates at least once. The frequency of each illegal drug was regressed against selected independent variables and the findings revealed that 10 variables explained 41.4 percent of the variance in alcohol use, 11 variables explained 57.3 percent of the variance in marijuana use, 8 variables explained 28.7 percent of the variance in cigarette use, 7 variables explained 30.4 percent of the variance in amphetamine use, and 8 variables explained 35.7 percent of the variance in barbiturate use.

# INTRODUCTION

Much interest has been generated in recent years concerning the widespread and increasing use (Harrell and Cisin, 1981; Johnston, et al., 1979; National Commission on Marijuana and Drug Abuse, 1972 and 1973) of illegal drugs by teenagers and young adults. A part of the concern is associated with the physiological and psychological problems created by substance abuse but another important factor is the deviant behavior associated with illegal drug use (Cushman, 1971; Eckerman, et al., 1971; Forslund, 1977-78; Inciardi and Chambers, 1972; McGlothlin, et al., 1978). It has been suggested that young people engage in deviant behavior to finance their illegal drug use and that many drug abusers become so disoriented under the influence they engage in behavior which is atypical of their "normal" behavior. Thus, drug abuse not only affects the user but other members of the society.

The extensive use of illegal drugs and corresponding negative social consequences generated for the society have been observed for many years. Mass media systems have presented information regarding the incidence of drug use and have detailed the problems associated with substance abuse. Many school systems have introduced educational programs to inform students of the evils of drug use but, unfortunately, these programs have not been very successful since the incidence of drug use among young people continues to increase (Harrell and Cisin, 1981; Johnston, et al., 1979).

A partial explanation for the failure of many drug programs is the relative lack of research designed to isolate causal factors in drug abuse. Many drug studies are purely descriptive and contribute little to theory formation and subsequently do not lend themselves to program development to ameliorate the problem.

An equally serious concern is the relative lack of research concerning specific subgroups within the society. A cursory examination of the existing drug abuse literature will demonstrate that the vast majority of drug abuse studies have been conducted in urban areas. Rural people have received relatively little research attention and the rural research to date suggests that drug abuse in rural areas is not nearly as extensive as it is in urban areas (Fischler, 1975-76; Forslund, 1977-78; Heiligman, 1973; Johnston, et al., 1979; National Commission on Marijuana and Drug Abuse, 1972 and 1973; Tolone and Dermott, 1975; U.S. Department of Health and Human Services, 1981). Napier, et al., (1981), however, discovered a very high incidence of drug abuse among rural high school students. Similar findings were also discovered among rural youth in Vermont (Kirk, 1979). Recent research studies (Harrell and Cisin, 1981; U.S. Department of Health and Human Services, 1981: 5) which have examined rural-urban differences in drug use tend to confirm the Napier, et al., (1981) and the Kirk (1979) findings that rural rates of illegal drug use are converging with urban rates. Thus, it must be concluded that illegal drug use is prevalent in rural areas but little is known about the problem.

Given the relative lack of research in rural drug abuse and the descriptive nature of many drug studies, the contributions of the study being reported in this paper are twofold: (1) to ascertain the incidence of drug use in a rural area; and (2) to isolate the covariates of frequency of drug use. The first research objective will address the issue of the extent of drug use in rural areas to ascertain whether or not a drug problem exists within the study group. The second objective will provide insight to the covariates of illegal drug use which may be useful in developing prevention programs.

## FACTORS SHOWN TO BE RELATED TO DRUG ABUSE

The existing drug abuse literature was examined to identify potential explanatory variables associated with frequency of illegal drug use among young people. The literature revealed that several variables have been demonstrated to be related to illegal drug use in one form or another. While consensus has not been achieved on every variable and sometimes there are some inconsistencies in the research findings, there are some general patterns which provide an initial starting place for empirical analyses. Several of the variables shown to affect drug abuse and used in this study are:

Age: Age has been shown to affect drug abuse (Blum, 1969; Harrell and Cisin, 1981; Josephson, 1974; Kirk, 1979; McKee and Robertson, 1975; Napier and Pratt, 1982; Napier, et al., 1981; National Commission on Marijuana and Drug Abuse, 1972). These studies basically indicate that older youths have a higher propensity to use illegal drugs than younger people. Such findings are logical because extra-family influences tend to increase with age and parental control of life experiences should decline with age. Thus, older youths would have a higher probability of being exposed to opportunities to try drugs.

Sex: The research findings for gender and illegal drug use among young people are not as clearly defined nor as consistent as those for age. The literature tends to support the position that males are much more inclined to use illegal drugs than are females but the evidence suggests that the differences are being eroded over time (Blackford, 1977; Blum 1969; Blumberg, 1975; Johnston, et al., 1979; Josephson, 1974; Judd, et al., 1973; Kirk, 1979; Lombrillo and Hain, 1972; McGlothlin, 1974; McKee and Robertson, 1975; Napier and Pratt, 1982; Napier, et al., 1981; National Commission on Marijuana and Drug Abuse, 1972 and 1973; Pittel, 1973; Schumann and Polkowski, 1975;

Solomon, 1968). Females, however, have been shown to use amphetamines more frequently than their male counterparts (Ellinwood, 1974; National Commission on Marijuana and Drug Abuse, 1972 and 1973; Solomon, 1968). The research expectation for sex is that males are expected to be more frequent users of illegal drugs than are females. Females, however, are expected to be more frequent users of amphetamines.

Race: It has often been reported that nonwhite youths tend to use illegal drugs more frequently than whites (Brunswick, 1979) even though it is recognized that the differences are probably converging over time (Harrell and Cisin, 1981; Kandel, et al., 1976; NIDA, 1976). With the rapid diffusion of drug use to suburbs and the high purchasing power of white youths, it should not be surprising that white youths have become extensive users of illegal drugs. The literature suggests, however, that race will be significantly related to illegal drug use and that nonwhites will be the most frequent users of illegal drugs.

Parental Relationships: Numerous studies have shown that interpersonal relationships of parents to each other and to their children affect illegal drug use (Forslund, 1977-78; Johnson, et al., 1972; Kandel, et al., 1976; National Commission on Marijuana and Drug Abuse, 1972 and 1973; Streit and Oliver, 1972; Tolone and Dermott, 1975). It is argued that an unstable home-life will increase the probability the individual will become a drug abuser. When interpersonal relationships of parents are strained or fragmented via separation or divorce, the probability of drug abuse by children in such a family unit is enhanced. This line of reasoning suggests that drug abuse is perceived as a means of coping with stress. The only research studies that take issue with the aforementioned position are by Judd, et al., (1973), Kirk

(1979) and Napier and Pratt (1982). Judd, et al., (1973), did note that disaggregation of female respondents from the data set for separate analyses did reveal significant differences between drug users and nonusers by marital status of parents. Thus, the literature suggests that interpersonal relationships between parents and children and between parents are significant covariates of illegal drug use. It is expected that children from fragmented and stressful home environments will have a higher propensity to use illegal drugs.

Religiosity: Religious orientations have been shown to affect certain types of drug use (Adler and Lotecka, 1973; Burkett and White, 1974; Fischler, 1975-76; Kirk, 1979; Marden and Kolodner, 1977; McIntosh, et al., 1981). The logic advanced for such findings is that commitment to certain religious belief structures will tend to inhibit drug use since such use would be defined as contrary to certain religious orientations. It is also quite possible that social pressure may be applied by religious peers not to use drugs. It is, therefore, expected that religiosity will be significantly related to frequency of illegal drug use and that persons with strong religious orientations will be less frequent users of illegal drugs.

Peer Influence: The influence of peers on drug abuse has been widely discussed and frequently documented (Akers, et al., 1979; Johnston, et al., 1979; Kirk, 1979; Linder, et al., 1974; National Commission on Marijuana and Drug Abuse 1972 and 1973; Smart, 1976; Sorosiak, et al., 1976; Tolone and Dermott, 1975). Illegal drug use like any other behavior must be learned and it is frequently learned from associates who engage in the behavior. Young people are strongly influenced by peers to conform to group expectations and if peer group members are oriented toward drug use, then social pressure will

be applied to use drugs and to continue use while in their presence. It is expected that measures of peer influence will be significantly correlated with frequency of illegal drug use in a positive manner.

Income: At one time, it was argued that illegal drug use was primarily confined to low income status groups but now it is recognized that drug abusers come from all status groups. There is some evidence which suggests that certain drugs are more frequently used by high status people (Ianni, 1973; Josephson, 1974; McKee and Robertson, 1975; National Commission on Marijuana and Drug Abuse, 1972; Patch, 1973). The adoption of drug use by higher status groups should not be surprising given the purchasing power the higner status groups. Purchasing power facilitates the accessing of drugs without resorting to deviant behavior to secure money and thus aids in the practice of the behavior. It is expected that higher income people will have a higher propensity to use illegal drugs.

Deviant Behavior: Illegal drug use has been shown to be significantly related to deviant behavior (Cushman, 1971; Eckerman, et al., 1971; Forslund, 1977-78; Inciardi and Chambers, 1972; McGlothlin, et al., 1978). Users of illegal drugs frequently must secure money to purchase the drugs and must at times resort to deviant behavior to access economic resources. The physiological and/or psychological need for drugs can overcome constraints of the social control systems and result in deviant behavior to secure money for drug purchases. It is expected that indicators of deviant behavior will be significantly related to frequency of drug use and that deviant behaviors which produce money will be related in a positive manner to frequency of illegal drug use.

Parental Drug Use: Parents' use of drugs has been shown to be related to drug use among young people (Kandel, et al., 1976; McIntosh, et al., 1981; National Commission on Marijuana and Drug Abuse, 1972; Tolone and Dermott, 1975). Such findings are logical since children frequently use their parents as role models and attempt to emulate their parents' behavior. If parents use drugs, their children should perceive that such behavior is socially acceptable and participate in the use of drugs. It is expected that young people with parents who use drugs will have a higher propensity to be drug abusers.

## STUDY METHODS

### The Study Group

Data were collected in the spring of 1981 from 2060 junior and senior high school students in a rural county located in southern Georgia. The sample consists of 83.2 percent of all the students in the eighth through twelfth grades in the county. The only students in the county who were not included in the study were those enrolled in a very small private school which refused to participate in the study (5 percent of the students in the county) and students absent at the time the data were collected. Given the large sample size and the wide representation from public schools, it is argued the data are quite adequate to test the research expectations. The characteristics of the study sample are presented in Table 1.

(Table 1 About Here)

The study county is quite rural using a census definition and is primarily agrarian based even though the economy is becoming more diversified over time due to the inmigration of small industrial firms during the last decade. The county population is slightly younger than the state as a whole

which is unusual for rural counties in Georgia. The age composition of the county is a partial function of the location of a junior college and several state offices in the major town in the county. The presence of these institutions also explains the relatively high number of professionally trained people who are not native to the county. The nonwhite population of the county consists of approximately 26 percent of the total but many of the nonwhites are poor. These characteristics indicate that the study population is primarily agrarian based but quite heterogeneous and in the state of transition.

Data Collection

Data were collected from the students during regularly scheduled school hours in large group interviewing sessions. Trained field staff persons who did not have children in the junior or senior high schools administered the questionnaires. The monitors read each question and the students recorded their responses on questionnaires in their possession. The students were cautioned not to record answers until the monitor read the question.

No interaction was permitted among the respondents during the interviewing sessions and the anonymity of the respondents was assured. No names or codes for identification purposes were used. All of the respondents were required to remain seated until all of the questionnaires were completed and placed in the envelope on the monitor's desk. These precautions were taken to ensure that the respondents would not artificially inflate or deflate drug use due to peer pressure.1/

1/ Research (Akers, et al., 1979; Hardt and Peterson-Hardt, 1977; Single, et al., 1975) has shown that self reporting is a valid and reliable method to collect information on drug abuse from juveniles.

Operationalization of Variables

Age was measured as the respondent's age in years at last birthdate.

Sex was measure as a dummy variable with females receiving a value of 1 and males a value of 2.

Race was measured as a dummy variable with whites receiving a value of 1 and nonwhites a value of 2.

Parental association was measured with three variables termed "parents' marital status," "stressful homelife," and "parental relationships." Parents' marital status was treated as a dummy variable with married couples given a value of 1 and not married (divorced, widowed, single, etc.) received a value of 2. Stressful homelife was measured by asking the respondent to note how well he/she got along with his/her parent(s) or guardian(s). The responses were weighted 1 through 5 with a value of 1 representing a very good relationship and 5 representing a very poor relationship. Parental relationships were measured by asking the respondent to note how well his/her parents get along with each other. The possible responses ranged from very poor to very well and were weighted so that high scores indicated very poor relationships between the parents.

Religiosity was measured by asking the respondents to indicate along a continuum of 1 to 10 how religious they perceived themselves to be. A value of 1 indicated not religious at all while a value of 10 indicated a very religious orientation.

Peer influences were measured with two variables termed "dating frequency" and "drug culture identification." Dating frequency was operationalized using response categories which were weighted 1 to 6 with no dating responses receiving a value of 1 and many dates receiving a value of 6. Drug

culture identification was measured as a psychosocial identification with "pot-head groups." The possible responses were: a lot, some, and none. Responses were weighted 3 through 1 with "a lot" receiving a value of 3 and "none" receiving a value of 1.

Income was measured by asking the respondents to compare their family's income with other families. The possible responses were: very poor, poor, less than average, average, more than average, wealthy, and very wealthy. The possible range of scores was 1 through 7 with 1 representing very poor and 7 very wealthy.

Deviant behavior was measured with two variables termed "participation in shoplifting" and "sale of drugs." Participation in shoplifting was measured by asking the respondent how frequently he/she had shoplifted. The range of possible responses was from "never" to "frequently." A value of zero was given to never shoplifted, a value of 1 for once or twice, a value of 2 for occasionally and a value of 3 for frequently. "Sale of drugs" was measured by asking the respondents if they had ever sold drugs to make money. A "yes" response received a value of 2 while a "no" response received a value of 1.

Parents' drug use was measured with two variables termed "parents use alcohol" and "parents use illegal drugs." Parents use of alcohol was measured by asking the respondent to note if both parents drank alcohol, if one parent drank alcohol, if no parent drank alcohol. If both parents drank alcohol, then the response was given a value of 3; if only one parent drank, then the response was given a value of 2; and if neither parent drank, then the response was given a value of 1. Parents use of illegal drugs was operationalized by a question which asked the respondents if their parents misused drugs by taking drugs without a prescription. A value of 3 was given if both

parents abused drugs, a value of 2 was given if only one parent abused drugs, and a value of 1 was received if neither parent abused drugs.

The dependent variables were measured as the frequency of illegal drug use. The respondent was requested to circle a number along a continuum that best reflected his/her use of specific illegal drugs. The drugs examined in this report are alcohol, marijuana, cigarettes, amphetamines and barbiturates. The respondent was given the formal drug name and then the "street name" to ensure the students knew what they were being asked to assess. The possible responses were: almost every day, several times a week, a few times a month, a few times a year, only once or twice ever, and never have tried. A value of 6 was given to almost every day, a value of 5 to several times a week, a value of 4 to a few times a month, a value of 3 for a few times a year, a value of 2 for only once or twice ever, and a value of 1 for never have tried. This methodology was adopted because it has been shown to produce "almost a perfect correlation" with actual frequency of drug use measured on a continuous basis (Akers, et al., 1979).

Statistical Analyses

The data were analyzed using descriptive and multivariate statistics. Correlational analyses were used to test the relevance of the research hypotheses while stepwise regression analyses were used to ascertain the relative explanatory power of the independent variables when all variables were considered simultaneously. It was assumed the measurement of the variables met the assumption of metric measure (Abelson and Tukey, 1970; Labovitz, 1970; Kim, 1975). All missing data were assigned the variable mean and retained for further analysis with the exception of "parental relationships." The missing

data were so minute the use of the mean for missing data did not affect the central tendency data. Nearly all of the variables had less than 1 percent missing data. "Parental relationships," however, had 25 percent missing data due to single parent families. This variable was treated separately in the correlational analysis and not included in the regressions.

## FINDINGS

The research findings support nearly all of the research expectations. The most notable finding is the relatively high use of illegal drugs by the study respondents. These data are presented in Table 2.

(Table 2 About Here)

Data presented in Table 2 reveal that 76.7 percent of the student respondents had tried alcohol at least once and that 41 percent had tried marijuana. Approximately 64.5 percent of the students had used cigarettes, 16 percent had tried amphetamines, and 12.2 percent had tried barbiturates. These data indicate that drug abuse among young people in the study county is considerably higher than recent national figures for rural youth (Harrell and Cisin, 1981) but lower than comparable data generated in rural Ohio (Napier and Pratt, 1982). Thus, one must conclude that the incidence of illegal drug use in the study population is considerable and worthy of attention.

### Correlational Findings

The bivariate correlational analyses produced from the data are presented in Table 3. The correlation coefficients were used to assess the merits of the research expectations.

(Table 3 About Here)

The findings in Table 3 show that the variables selected for analysis were nearly all significantly correlated with the dependent variables at the .05 level. The major exceptions are parents' marital status and income which were very poor predictors of illegal drug use and not significant in most instances at the .05 level.

The findings show that older youths tended to be the most frequent users of all drugs evaluated. Males tended to use all drugs evaluated more than females. Whites tended to use drugs more frequently than nonwhites with the exception of marijuana. Parents' marital status was not shown to be significantly related to drug use except for marijuana. Youngsters that tended to have a more stressful homelife tended to be more inclined to use all the drugs evaluated more frequently. Respondents from families with interpersonal conflicts between parents tended to use illegal drugs more frequently. Young people who were more religious tended to use fewer drugs. Both peer related independent variables were significantly related to all of the dependent variables. As dating frequency increased, so did the frequency of drug use for all drugs evaluated. As identification with the drug culture group increased, so did use of all drugs. Income was not significantly related to the drugs evaluated with the exception of barbiturate use. It was observed that youngsters from higher income groups tended to be slightly more inclined to use barbiturates. The two deviant behavior variables treated as independent factors were significantly correlated with frequency of use of all drugs evaluated. Persons who tended to engage in shoplifting tended to be more frequent users of all drugs examined in this study. The same findings were noted for the variable termed "sale of drugs." Parental use of drugs was related to

drug use of the respondents. As use of drugs by parents increased so did frequency of drug use among the respondents.

All of these findings are consistent with the research expectations with the exceptions of the variables shown to be insignificant at the .05 level and the findings for race. It was hypothesized that nonwhites would be more frequent users of drugs which was shown not to be true for most of the drugs evaluated.

In sum, the correlation findings basically support the research expectations. With the exceptions of parents' marital status and income, which were not significantly related to drug use, and the direction of the correlation coefficient for race, the findings are consistent with the research expectations. It must be noted, however, that the correlations were very low to moderate and the magnitude of the relationship must be considered in the interpretation of the findings.

Regression Findings

The variance in each of the dependent variables was regressed in a stepwise fashion against each of the independent variables discussed above with the exception of parental relationships which was deleted due to 25 percent missing cases.2/ The regression findings are presented in Tables 4 through 8.

(Tables 4 Through 8 Here)

These findings demonstrate that considerable variability in each of the dependent variables was explained by the factors included in the analyses.

2/ The variable was included in exploratory regression analyses using listwise deletion of missing cases to determine if it would enter which it did not. It was concluded that exclusion of the variable from the regression analyses due to loss of so many cases was justified and did not affect the outcome of the regression findings for any of the 5 dependent variables.

Ten variables explained 41.4 percent of the variance in alcohol use while 11 variables explained 57.3 percent of the variance in marijuana use. Eight variables explained 28.7 percent of the variance in the frequency of cigarette use. Seven variables explained 30.4 percent of the variance in amphetamine use while 7 variables explained 35.7 percent of the variance in barbiturate use.

The most important finding derived from the regression analysis presented in Tables 4-8 is the relationship of drug culture identification with all of the dependent variables. Drug culture identification was the first variable to enter in every regression model and accounted for a large portion of the explained variance in each dependent variable. This finding validates the assertion made early in the paper that peer influence via identification should be important as a predictive factor.

"Sale of drugs" was a very important explanatory factor for the three most severely sanctioned illegal drugs (marijuana, amphetamines, and barbiturates). The young drug user apparently must sell drugs from time to time to secure monies for these types of drugs.

No clear pattern emerged in terms of the other explanatory variables. This suggests that factors affecting drug use vary by the substance being abused and that broad generalization about covariants of drug use across drug types may be inappropriate.

Multi-Drug Use

Considerable literature exists which demonstrates that people who use illegal drugs do not confine their use to a particular drug but experiment with other drugs or use drugs in combination (Ellinwood, 1974; Goode, 1971;

Groves, 1974; Josephson, 1974; McGlothlin, 1974; Napier and Pratt, 1982; Napier, et al., 1981; National Commission on Marijuana and Drug Abuse, 1972 and 1973). To examine this phenomenon, the frequencies of use for each drug were correlated with those of the other drugs and the findings are presented in Table 9.

(Table 9 About Here)

The correlation findings presented in Table 9 show that frequent users of illegal drugs tend to be multi-drug users. This finding suggests that the drug abuse problem will not be solved via prevention programs focused on a specific drug.

## SUMMARY AND CONCLUSIONS

Drug abuse data were collected from 83.2 percent of all the students in the 8 through 12 grades in a rural county in southern Georgia in the spring of 1981. Socio-demographic, behavioral, and psychosocial factors were used to predict the incidence of drug use with considerable success. Nearly all of the research expectations were shown to be true. Youngsters who were: older, male, white, from stressful home environments, less religious, more active in dating, identified with the drug culture group, more frequently engaged in shoplifting, sellers of drugs at some time, and from families where parents use drugs tended to be more frequent drug users. The most significant factor in terms of explanatory power for all of the drugs evaluated was identification with drug culture group.

The study findings basically demonstrated that illegal drug use was quite extensive among the study respondents and that the use of drugs was primarily confined to alcohol, marijuana, and cigarettes. This suggests that programs

designed to prevent or reduce drug abuse in the study county should be focused on these illegal drugs.

The multivariate regression analyses revealed that a relatively large amount of variance in all of the drugs assessed was explained but that relatively few consistent variable patterns emerged. Drug culture identification was the first variable to enter into the regression analysis for each drug assessed but no other consistent pattern was identifiable. This finding suggests that explanatory models for drug abuse are very complex and may be unique for each drug. Factors that may be predictive for one drug may be less useful for others. This suggests that development of drug prevention programs may have to be based on research findings that are focused on the specific drug to be addressed.

The study findings clearly demonstrate the importance of peer group identification and peer influences in drug abuse. Young people who identified with the drug culture group tended to be more frequent drug users. The same is true for dating behavior. The students most active in dating tended to be more frequent users of drugs. Thus, programs to resolve drug problems among young people must address the influence of peers and disrupt the identification with drug oriented groups. Unless peer influences can be negated, it is highly unlikely that effective programs to reduce drug abuse among young people in the study area will be successful. The fact that religiosity was shown to be an impediment to drug use should provide insight to the need for alternative group identifications. Persons who perceived themselves to be religious tended to be less frequent drug users. Programs designed to enhance belief structures that are non-drug oriented appears to have basis in empirical fact.

Drug programs developed for the study area should be designed for very heterogeneous populations in terms of socio-demographic factors. While whites, males, and older youths tended to be more frequent users of drugs, the magnitude of the relationships was low. This is encouraging since prevention programs do not have to be designed for specific segments of the population but may be designed for general populations.

Lastly, prevention programs cannot ignore the home environment of young people but the relative explanatory power of family life factors was not very strong. The findings indicate that an adverse home environment due to stress among family members can contribute to drug use but that the influence of the family situation in contributing to drug use is frequently grossly overstated.

The study findings reported here basically support the existing drug abuse literature. This is encouraging since previous research by Napier, et al., (1981) revealed that variable patterns identified in the drug abuse literature were not good predictors of juvenile drug use in rural Ohio. The Georgia findings indicate the factors identified in the existing literature are relevant for prediction purposes but will vary in terms of importance from drug to drug. The tasks of researchers are to isolate the predictive variables for each drug and to aid action agencies in the creation of innovative programs to reduce and prevent drug abuse among youth in this society.

TABLE 1. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF GEORGIA DRUG STUDY RESPONDENTS*

| Characteristic | Descriptive Data |
|---|---|
| Age | mean = 15.5 years<br>SD = 1.5 years |
| Sex | 51.4% male<br>48.6% female |
| Race | 65.4% white<br>34.6% nonwhite |
| Parents' Marital Status | 69% married<br>31% not married |
| Degree of Religiosity (0-10) | mean = 6.2<br>SD = 2.0 |
| Grade Distribution of Respondents | 21.2% 8th grade<br>21.2% 9th grade<br>20.4% 10th grade<br>21.1% 11th grade<br>16.2% 12th grade |
| Participation in Shoplifting | yes 46.0%<br>no 54.0% |
| Lived in County All Their Life | yes 65.2%<br>no 34.6%<br>no data 0.2% |
| Participated In Sale of Drugs | yes 12.3%<br>no 87.5%<br>no data 0.2% |
| Perceived Family Income | very poor 1.0%<br>poor 1.7%<br>less than average 11.0%<br>average 41.7%<br>more than average 32.3%<br>wealthy 9.5%<br>very wealthy 2.7%<br>no data 0.1% |
| Identification With Pot-Head Group | a lot 9.3%<br>some 16.8%<br>none 70.4%<br>no data 3.4% |
| Family Receives Some Public Assistance | yes 15.5%<br>no 79.7%<br>don't know 4.3%<br>no data 0.5% |

*Percentages may not sum to 100.0 due to rounding error.



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TABLE 2. FREQUENCY OF ILLEGAL DRUG USE AMONG JUNIOR AND SENIOR HIGH STUDENTS WITH PERCENTAGES* IN PARENTHESES (N=2060)

| Type of Drug | Frequency of Drug Use | | | | | | |
|---|---|---|---|---|---|---|---|
| | Almost daily | Several times a week | A few times a month | A few times a year | Only once or twice ever | Never have tried | No data |
| Alcohol | 54 (2.6) | 219 (10.6) | 510 (24.8) | 355 (17.2) | 442 (21.5) | 467 (22.7) | 13 (0.6) |
| Marijuana | 89 (4.3) | 157 (7.6) | 181 (8.8) | 174 (8.4) | 244 (11.8) | 1195 (58.0) | 20 (1.0) |
| Cigarettes | 332 (16.1) | 100 (4.9) | 111 (5.4) | 230 (11.2) | 556 (27.0) | 708 (34.4) | 23 (1.1) |
| Amphetamines | 18 (0.9) | 29 (1.4) | 74 (3.6) | 93 (4.5) | 116 (5.6) | 1711 (83.1) | 19 (0.9) |
| Barbiturates | 10 (0.5) | 23 (1.1) | 64 (3.1) | 72 (3.5) | 81 (3.9) | 1793 (87.0) | 17 (0.8) |

*Percentages may not sum to 100.0 due to rounding error.

TABLE 3. BIVARIATE CORRELATION ANALYSES OF DRUG USE OF JUNIOR AND SENIOR HIGH SCHOOL STUDENTS WITH SELECTED PREDICTIVE VARIABLES (N=2060)

| Predictive Variable | Drugs of Abuse | | | | |
|---|---|---|---|---|---|
| | Alcohol | Marijuana | Cigarettes | Amphetamines | Barbiturates |
| Age | 0.311 | 0.235 | 0.172 | 0.108 | 0.073 |
| Sex | 0.229 | 0.183 | 0.086 | -0.005* | 0.060 |
| Race | -0.081 | 0.044 | -0.091 | -0.148 | -0.167 |
| Parents' Marital Status | 0.029* | 0.094 | 0.034* | -0.025* | -0.025* |
| Stressful Homelife | 0.171 | 0.181 | 0.222 | 0.148 | 0.147 |
| Parental** Relationships | 0.117 | 0.130 | 0.145 | 0.112 | 0.088 |
| Religiosity | -0.260 | -0.292 | -0.243 | -0.182 | -0.182 |
| Dating Frequency | 0.427 | 0.299 | 0.234 | 0.220 | 0.236 |
| Drug Culture Identification | 0.439 | 0.677 | 0.459 | 0.471 | 0.520 |
| Income | -0.003* | -0.010* | -0.039* | 0.008* | 0.044 |
| Participation In Shoplifting | 0.326 | 0.351 | 0.256 | 0.236 | 0.244 |
| Sale of Drugs | 0.363 | 0.536 | 0.326 | 0.386 | 0.438 |
| Parents Use Alcohol | 0.193 | 0.088 | 0.068 | 0.056 | 0.029* |
| Parents Use Illegal Drugs | 0.058 | 0.091 | 0.070 | 0.064 | 0.043* |

*Not significant at the .05 level.

**Listwise deletion of missing data reduced the number of respondents to 1483.

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TABLE 4: STEPWISE REGRESSION ANALYSES FOR FREQUENC. OF ALCOHOL USE AND SELECTED INDEPENDENT VARIABLES· ANALYSES PRESENTED IN UNSTANDARDIZED REGRESSION COEFFICIENT FORM WITH STANDARD ERROR OF THE ESTIMATES IN PARENTHESES (N=2060)

| | Drug Culture Identification | Dating Frequency | Participation In Shoplifting | Age | Parents Drink | Sex | Religiosity | Sale of Drugs | Race | Stressful Homelife | Adjusted Coefficient of Determination | F-Ratio of Entering Variable | Intercept |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Step 1 | 0.973 (0.044) | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.193 | 491.5 | 1.6 |
| Step 2 | 0.799 (0.042) | 0.281 (0.015) | -- | -- | -- | -- | -- | -- | -- | -- | 0.305 | 333.8 | 3.0 |
| Step 3 | 0.676 (0.042) | 0.273 (0.015) | 0.411 (0.038) | -- | -- | -- | -- | -- | -- | -- | 0.343 | 118.1 | 3.5 |
| Step 4 | 0.683 (0.042) | 0.220 (0.016) | 0.401 (0.037) | 0.146 (0.019) | -- | -- | -- | -- | -- | -- | 0.362 | 61.6 | 5.6 |
| Step 5 | 0.674 (0.041) | 0.214 (0.016) | 0.375 (0.037) | 0.148 (0.018) | 0.245 (0.033) | -- | -- | -- | -- | -- | 0.379 | 55.8 | 5.0 |
| Step 6 | 0.669 (0.041) | 0.206 (0.016) | 0.318 (0.038) | 0.148 (0.018) | 0.245 (0.032) | 0.331 (0.051) | -- | -- | -- | -- | 0.392 | 42.5 | 5.5 |
| Step 7 | 0.629 (0.041) | 0.206 (0.016) | 0.293 (0.038) | 0.142 (0.018) | 0.227 (0.032) | 0.317 (0.050) | -0.067 (0.013) | -- | -- | -- | 0.400 | 27.7 | 5.8 |
| Step 8 | 0.538 (0.045) | 0.206 (0.016) | 0.273 (0.038) | 0.135 (0.018) | 0.232 (0.032) | 0.276 (0.051) | -0.061 (0.013) | 0.425 (0.088) | -- | -- | 0.407 | 23.6 | 5.1 |
| Step 9 | 0.525 (0.045) | 0.194 (0.016) | 0.286 (0.038) | 0.148 (0.018) | 0.229 (0.032) | 0.265 (0.051) | -0.066 (0.013) | 0.434 (0.087) | -0.216 (0.052) | -- | 0.412 | 17.1 | 5.6 |
| Step 10 | 0.515 (0.045) | 0.194 (0.016) | 0.274 (0.038) | 0.149 (0.018) | 0.222 (0.032) | 0.283 (0.051) | -0.061 (0.013) | 0.419 (0.087) | -0.194 (0.053) | 0.072 (0.022) | 0.414 | 10.2 | 5.4 |

*The variables not listed were insignificant at the .05 level.

TABLE 5. STEPWISE REGRESSION ANALYSES FOR FREQUENCY OF MARIJUANA USE AND SELECTED INDEPENDENT VARIABLES: THE DATA ARE PRESENTED IN UNSTANDARDIZED COEFFICIENT FORM WITH STANDARD ERROR OF THE ESTIMATES IN PARANTHESES (N=2060)

| | Drug Culture Identification | Sale of Drugs | Age | Participation In Shop Lifting | Religiosity | Dating Frequency | Parents' Marital Status | Race | Stressful Homelife | Sex | Income | Adjusted Coefficient of Determination | F-Ratio of Entering Variable | Intercept |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Step 1 | 1.634 (0.039) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.459 | 1743.8 | 0.6 |
| Step 2 | 1.317 (0.043) | 1.267 (0.083) | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.514 | 233.4 | -0.9 |
| Step 3 | 1.308 (0.042) | 1.175 (0.081) | 0.158 (0.016) | -- | -- | -- | -- | -- | -- | -- | -- | 0.537 | 101.3 | 1.7 |
| Step 4 | 1.247 (0.041) | 1.065 (0.081) | 0.154 (0.015) | 0.289 (0.034) | -- | -- | -- | -- | -- | -- | -- | 0.552 | 70.2 | 2.2 |
| Step 5 | 1.217 (0.042) | 1.027 (0.081) | 0.149 (0.015) | 0.264 (0.035) | -0.063 (0.012) | -- | -- | -- | -- | -- | -- | 0.558 | 28.2 | 2.5 |
| Step 6 | 1.182 (0.042) | 1.018 (0.081) | 0.114 (0.017) | 0.259 (0.034) | -0.063 (0.012) | 0.073 (0.015) | -- | -- | -- | -- | -- | 0.563 | 25.0 | 2.4 |
| Step 7 | 1.187 (0.042) | 1.015 (0.080) | 0.111 (0.017) | 0.249 (0.034) | -0.059 (0.012) | 0.075 (0.015) | 0.206 (0.049) | -- | -- | -- | -- | 0.567 | 17.7 | 2.6 |
| Step 8 | 1.194 (0.042) | 1.012 (0.080) | 0.104 (0.017) | 0.244 (0.034) | -0.057 (0.012) | 0.082 (0.015) | 0.168 (0.051) | 0.131 (0.051) | -- | -- | -- | 0.568 | 6.6 | 2.2 |
| Step 9 | 1.185 (0.042 | 1.005 (0.080) | 0.104 (0.017) | 0.236 (0.034) | -0.053 (0.012) | 0.082 (0.015) | 0.162 (0.051) | 0.149 (0.051) | 0.059 (0.021) | -- | -- | 0.570 | 8.1 | 1.9 |
| Step 10 | 1.192 (0.042) | 0.968 (0.081) | 0.104 (0.017) | 0.216 (0.035) | -0.052 (0.012) | 0.079 (0.015) | 0.164 (0.051) | 0.157 (0.051) | 0.065 (0.021) | 0.126 (0.047) | -- | 0.572 | 7.0 | 2.1 |
| Step 11 | 1.188 (0.042) | 0.964 (0.081) | 0.111 (0.017) | 0.218 (0.035) | -0.054 (0.012) | 0.075 (0.015) | 0.180 (0.051) | 0.161 (0.051) | 0.073 (0.021) | 0.126 (0.047) | 0.054 (0.023) | 0.573 | 5.7 | 2.4 |

*The variables not listed were insignificant at the .05 level.





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TABLE 6: STEPWISE REGRESSION ANALYSES FOR FREQUENCY OF CIGARETTE USE AND SELECTED INDEPENDENT VARIABLES: THE DATA ARE PRESENTED IN UNSTANDARDIZED COEFFICIENT FORM WITH STANDARD ERROR OF THE ESTIMATES IN PARENTHESES (N=2060)

| | Drug Culture Identification | Stressful Homelife | Age | Participation In Shop lifting | Religiosity | Race | Sale of Drugs | Dating Frequency | Adjusted Coefficient of Determination | F-Ratio of Entering Variable | Intercept |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Step 1 | 1.291 (0.055) | -- | -- | -- | -- | -- | -- | -- | 0.211 | 549.7 | 0.9 |
| Step 2 | 1.220 (0.055) | 0.241 (0.032) | -- | -- | -- | -- | -- | -- | 0.232 | 58.1 | 0.2 |
| Step 3 | 1.187 (0.055) | 0.242 (0.031) | 0.161 (0.023) | -- | -- | -- | -- | -- | 0.250 | 60.1 | 2.7 |
| Step 4 | 1.101 (0.056) | 0.224 (0.031) | 0.154 (0.023) | 0.299 (0.051) | -- | -- | -- | -- | 0.263 | 34.3 | 3.1 |
| Step 5 | 1.052 (0.057) | 0.206 (0.031) | 0.147 (0.023) | 0.263 (0.051) | -0.087 (0.018) | -- | -- | -- | 0.271 | 24.0 | 3.6 |
| Step 6 | 1.028 (0.057) | 0.188 (0.031) | 0.159 (0.023) | 0.283 (0.051) | -0.094 (0.018) | -0.335 (0.073) | -- | -- | 0.279 | 21.3 | 4.5 |
| Step 7 | 0.929 (0.062) | 0.184 (0.031) | 0.150 (0.023) | 0.255 (0.052) | -0.089 (0.018) | -0.339 (0.072) | 0.459 (0.120) | -- | 0.284 | 14.6 | 3.8 |
| Step 8 | 0.898 (0.063) | 0.184 (0.031) | 0.114 (0.025) | 0.249 (0.052) | -0.088 (0.018) | -0.296 (0.073) | 0.450 (0.120) | 0.074 (0.022) | 0.287 | 11.0 | 3.5 |

*The variables not listed were insignificant at the .05 level.

TABLE 7. STEPWISE REGRESSION ANALYSES FOR FREQUENCY OF AMPHETAMINE USE AND SELECTED INDEPENDENT VARIABLES: THE DATA ARE PRESENTED IN UNSTANDARDIZED COEFFICIENT FORM WITH STANDARD ERROR OF THE ESTIMATES IN PARENTHESES (N=2060)

| | Drug Culture Identification | Sale of Drugs | Race | Sex | Participation In Shoplifting | Dating Frequency | Religiosity | Adjusted Coefficient of Determination | F-Ratio of Entering Variable | Intercept |
|---|---|---|---|---|---|---|---|---|---|---|
| Step 1 | 0.688 (0.028) | -- | -- | -- | -- | -- | -- | 0.221 | 585.2 | 3.8 |
| Step 2 | 0.542 (0.032) | 0.585 (0.062) | -- | -- | -- | -- | -- | 0.253 | 88.2 | 3.1 |
| Step 3 | 0.526 (0.032) | 0.604 (0.062) | -0.255 (0.037) | -- | -- | -- | -- | 0.270 | 47.2 | 3.5 |
| Step 4 | 0.524 (0.031) | 0.672 (0.063) | -0.263 (0.037) | -0.189 (0.036) | -- | -- | -- | 0.280 | 27.5 | 3.2 |
| Step 5 | 0.487 (0.032) | 0.627 (0.063) | -0.284 (0.037) | -0.236 (0.037) | 0.164 (0.027) | -- | -- | 0.293 | 37.1 | 3.4 |
| Step 6 | 0.462 (0.032) | 0.610 (0.062) | -0.264 (0.037) | -0.249 (0.036) | 0.160 (0.027) | 0.053 (0.010) | -- | 0.302 | 26.4 | 3.6 |
| Step 7 | 0.450 (0.032) | 0.596 (0.062) | -0.273 (0.037) | -0.253 (0.036) | 0.151 (0.027) | 0.052 (0.010) | -0.025 (0.009) | 0.304 | 7.6 | 3.8 |

*The variables not listed were insignificant at the .05 level.

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TABLE 8. STEPWISE REGRESSION ANALYSES FOR FREQUENCY OF BARBITURATE USE AND SELECTED INDEPENDENT VARIABLES: THE DATA ARE PRESENTED IN UNSTANDARDIZED COEFFICIENT FORM WITH STANDARD ERROR OF THE ESTIMATES IN PARENTHESES (N=2060)

| | Drug Culture Identification | Sale of Drugs | Race | Dating Frequency | Participation In Shoplifting | Sex | Religiosity | Income | Adjusted Coefficient of Determination | F-Ratio of Entering Variable | Intercept |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Step 1 | 0.672 (0.024) | -- | -- | -- | -- | -- | -- | -- | 0.270 | 761.4 | 4.0 |
| Step 2 | 0.519 (0.027) | 0.609 (0.053) | -- | -- | -- | -- | -- | -- | 0.314 | 133.2 | 3.2 |
| Step 3 | 0.503 (0.027) | 0.628 (0.052) | -0.256 (0.031) | -- | -- | -- | -- | -- | 0.336 | 66.7 | 3.6 |
| Step 4 | 0.481 (0.027) | 0.608 (0.052) | -0.239 (0.031) | 0.045 (0.009) | -- | -- | -- | -- | 0.344 | 26.0 | 3.9 |
| Step 5 | 0.461 (0.027) | 0.573 (0.052) | -0.251 (0.031) | 0.043 (0.009) | 0.095 (0.022) | -- | -- | -- | 0.350 | 18.2 | 4.1 |
| Step 6 | 0.455 (0.027) | 0.607 (0.053) | -0.257 (0.031) | 0.045 (0.009) | 0.113 (0.023) | 0.118 (0.031) | -- | -- | 0.355 | 14.6 | 3.9 |
| Step 7 | 0.447 (0.027) | 0.599 (0.053) | -0.262 (0.031) | 0.045 (0.009) | 0.108 (0.023) | 0.121 (0.031) | -0.015 (0.008) | -- | 0.356 | 3.9 | 4.0 |
| Step 8 | 0.446 (0.027) | 0.599 (0.053) | -0.257 (0.031) | 0.044 (0.009) | 0.111 (0.023) | 0.122 (0.031) | -0.017 (0.008) | 0.031 (0.014) | 0.357 | 4.5 | 4.1 |

*The variables not listed were insignificant at the .05 level.

TABLE 9. INTERCORRELATIONS OF ILLEGAL DRUG USE AMONG JUNIOR AND SENIOR HIGH STUDENTS (N=2060)

| | Alcohol | Marijuana | Cigarettes | Amphetamines | Barbiturates |
|---|---|---|---|---|---|
| Alcohol | 1.00 | | | | |
| Marijuana | 0.60 | 1.00 | | | |
| Cigarettes | 0.51 | 0.57 | 1.00 | | |
| Amphetamines | 0.38 | 0.49 | 0.37 | 1.00 | |
| Barbiturates | 0.39 | 0.52 | 0.37 | 0.69 | 1.00 |

*All correlations are significant beyond the .001 level.

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